



Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1201

[CPSC Docket No. CPSC-2012-0049]

Safety Standard for Architectural Glazing Materials

AGENCY: Consumer Product Safety Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Consumer Product Safety Commission (“CPSC” or “Commission”) is proposing an amendment to the Safety Standard for Architectural Glazing Materials (16 CFR part 1201) to clarify certain test procedures specified in the standard. The CPSC proposes to replace the testing procedures for glazing materials in certain architectural products, set forth in 16 CFR 1201.4, with the testing procedures contained in the voluntary standard, ANSI Z97.1-2009^{e2}, *American National Standard for Safety Glazing Materials Used in Buildings – Safety Performance Specifications and Methods of Test*.

DATES: Written comments must be received by **[INSERT DATE THAT IS 60 DAYS**

AFTER PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket No. CPSC-2012-0049, by any of the following methods:

Electronic Submissions: Submit electronic comments to the Federal eRulemaking Portal at: <http://www.regulations.gov>. Follow the instructions for submitting comments. The Commission does not accept comments submitted by electronic mail (e-mail), except through

www.regulations.gov. The Commission encourages you to submit electronic comments by using the Federal eRulemaking Portal, as described above.

Written Submissions: Submit written submissions by mail/hand delivery/courier to: Office of the Secretary, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7923.

Instructions: All submissions received must include the agency name and docket number for this notice. All comments received may be posted without change, including any personal identifiers, contact information, or other personal information provided, to:

<http://www.regulations.gov>. Do not submit confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If furnished at all, such information should be submitted in writing.

Docket: For access to the docket to read background documents or comments received, go to: <http://www.regulations.gov>, and insert the docket number CPSC-2012-0049, into the “Search” box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT: Brian Baker, Project Manager, Division of Mechanical Engineering, Directorate for Laboratory Sciences, Office of Hazard Identification and Reduction, Consumer Product Safety Commission, 5 Research Place, Rockville, MD 20850; telephone: 301-987-2289; bbaker@cpsc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

A. Safety Standard for Architectural Glazing Materials

On January 6, 1977 (42 FR 1427), as amended on June 20, 1977 (42 FR 31164), the Commission issued the Safety Standard for Architectural Glazing Materials under the

Consumer Product Safety Act (“CPSA”) to reduce or eliminate risks of injuries associated with walking, running, or falling through or against glazing materials (“CPSC standard”). The standard applies to glazing materials used or intended for use in any of the following architectural products:

- (1) Storm doors or combination doors;
- (2) Doors (both exterior and interior);
- (3) Bathtub doors and enclosures;
- (4) Shower doors and enclosures; and
- (5) Sliding glass doors (patio-type).

The standard applies to glazing materials and architectural products incorporating glazing materials that are produced or distributed for sale to or for the personal use, consumption or enjoyment of consumers in or around a permanent or temporary household or residence or in recreational, school, public, or other buildings or parts thereof. The standard was codified at 16 CFR part 1201.

The standard exempts the following products, materials, and uses:

- (1) Wired glass used in doors or other assemblies to retard the passage of fire where required by federal, state, local, or municipal fire ordinance;
- (2) Louvers of jalousie doors;
- (3) Openings of doors which a 3 inch diameter sphere is unable to pass;
- (4) Carved glass (as defined in section 1201.2(a)(36)), dalle glass (as defined in § 1201.2(a)(37)), or leaded glass (as defined in section 1201.2(a)(14)), which is used in doors and glazed panels (as defined in sections 1201.2(a)(7) and (a)(10)) if the glazing material meets all of the following criteria:

- (i) The coloring, texturing, or other design qualities or components of the glazing material cannot be removed without destroying the material; and
 - (ii) The primary purpose of such glazing is decorative or artistic; and
 - (iii) The glazing material is conspicuously colored or textured so as to be plainly visible and plainly identifiable as aesthetic or decorative rather than functional (other than for the purpose of admitting or controlling admission of light components or heat and cold); and
 - (iv) The glazing material, or assembly into which it is incorporated, is divided into segments by conspicuous and plainly visible lines.
- (5) Glazing materials used as curved glazed panels in revolving doors; and
 - (6) Commercial refrigerator cabinet glazed doors.

16 CFR 1201.1(c).

On September 27, 1978, (43 FR 43704), the Commission amended the standard to clarify the definitions, description of test apparatus, and test procedures in the standard. The Commission stated that under the CPSA, when an amendment to a consumer product safety rule involves a material change, the procedures in section 7 and 9 apply. 15 U.S.C. 2058(h). The Commission determined, however, that the amendments to the definitions, test apparatus, and test procedures did not involve a material change to the standard because they did not affect the basic purpose and provisions of the standard. (42 FR 53798, 53799 (Oct. 3, 1977); 43 FR 43704 (Sept. 27, 1978).) Accordingly, the Commission did not apply the provisions of sections 7 and 9 of the CPSA. However, the Commission provided notice and comment under the informal rulemaking procedures of the Administrative Procedure Act (“APA”), 5 U.S.C. 553, before issuing a final rule.

The Commission subsequently revoked portions of the standard that prescribed requirements for “glazed panels” (45 FR 67383, August 28, 1980); an accelerated environmental durability test for plastic glazing materials intended for outdoor exposure (45 66002, October 6, 1980); and a modulus of elasticity test, a harness test, and an indoor aging test applicable to plastic glazing materials (47 FR 27853, June 28, 1982). 16 CFR 1201.1(d) n.1. Tempered glass, wired glass, and annealed glass are also exempt from the accelerated environmental durability tests. 16 CFR 1201.4(a)(2).

The testing procedures currently set forth in 16 CFR 1201.4 require impact tests and accelerated environment durability tests for non-exempted materials, which are intended to determine if glazing materials used in these architectural products meet safety requirements designed to reduce or eliminate unreasonable risks of death or serious injury to consumers when glazing material is broken by human contact. The testing procedures further describe the testing equipment and apparatus required to be used, and the test result interpretation methodology to be employed in determining if the glazing materials being tested meet the safety requirements of the standard.

B. Petition Request

On June 26, 2012, the Commission received a petition from the Safety Glazing Certification Council (“SGCC” or “petitioner”), requesting that the Commission initiate rulemaking to replace the testing procedures for glazing materials in certain architectural products, as set forth in 16 CFR 1201.4, with the testing procedures contained in the voluntary standard, ANSI Z97.1-2009⁶², *American National Standard for Safety Glazing Materials Used in Buildings – Safety Performance Specifications and Methods of Test* (the ANSI standard). SGCC stated that consumers and the glazing industry would be better

served if the test procedures for glazing materials used in architectural products set forth in 16 CFR 1201.4 were replaced with the ANSI standard test procedures because the ANSI test procedures are more efficient and modern. The petitioner asserts that the testing procedures set forth in section 1201.4 were promulgated in 1977, and they have not been updated or clarified, as necessary. The petitioner stated that the ANSI standard for glazing materials has been updated periodically (in 1984, 1994, 2004, and 2009), unlike the CPSC standard, and that these updates include modifications in testing equipment and procedures.

Petitioner asserted that the absence of updates to the CPSC standard during a period in which the ANSI standard was revised four times has resulted in different testing methods and qualifying procedures that have created confusion in the industry regarding which test methodology must be used in what circumstance. Petitioner claimed that the existence of overlapping but divergent CPSC and voluntary standards has resulted in manufacturers paying for duplicative testing.

On August 30, 2012, notice of the petition was published in the *Federal Register* (77 FR 52625). The Commission received five comments, all supporting the petitioner's request to amend the existing test procedures with the ANSI standard. The petition was referred to the Commission's staff for evaluation. On April 3, 2013, CPSC staff submitted a briefing package to the Commission evaluating the petition, including the feasibility of integrating the test procedures of the ANSI standard into the CPSC standard.¹ On April 9, 2013, the Commission voted to grant the petition.

On May 6, 2015, CPSC staff submitted a briefing package to the Commission recommending that the Commission issue a proposed amendment to 16 CFR 1201.4 that

¹<http://www.cpsc.gov/Global/Newsroom/FOIA/CommissionBriefingPackages/2013/ArchitecturalGlazingPetitionBriefingPackage.pdf>

would replace the testing procedures set forth in the CPSC mandatory standard for glazing materials in certain architectural products, with the testing procedures contained in the voluntary standard, ANSI Z97.1-2009⁶². The staff's briefing package is available on the CPSC's website at:

<http://www.cpsc.gov/Global/Newsroom/FOIA/CommissionBriefingPackages/2015/Proposed-Rule-to-Amend-the-Safety-Standard-for-Architectural-Glazing-Material.pdf>.

C. Statutory Authority

The proposed amendment to the CPSC standard would clarify certain test procedures specified in the mandatory standard. Under section 9 (h) of the CPSA, if an amendment of a consumer product safety rule “involves a material change,” 15 U.S.C. 2058(h), the Commission must make certain findings, including a finding that the amendment is “reasonably necessary to prevent or reduce an unreasonable risk of injury associated with such product”; the expected benefits of the amended rule “bear a reasonable relationship to its costs”; and the amended rule imposes “the least burdensome requirement which prevents or adequately reduces the risk of injury for which the rule is being promulgated.” *Id.* §§ 2056(a); 2058(a)-(g). If the amendment does not constitute “a material change” for purposes of section 9(h) of the CPSA, the Commission is not required to make the findings that are otherwise required for the amendment of a consumer product safety rule.

When the Commission previously amended the CPSC standard to clarify the definitions and the description of test apparatus and test procedures in the architectural glazing standard, the Commission determined that the amendments to the definitions, test apparatus, and test procedures did not involve a material change to the standard because the changes did not affect the basic purpose and provisions of the standard. (43 FR 43704, September 27,

1978). However, the Commission did not elaborate on what changes might affect the basic purpose of a standard.

To assess what types of changes may result in a material change for the proposed amendment, the Commission looked to other statutory language for guidance. The Consumer Product Safety Improvement Act (“CPSIA”) directed the Commission to establish protocols and standards to test children’s products for testing and certification purposes “when there has been a material change in the product’s design or manufacturing process.” 15 U.S.C.

2063(d)(2)(B). The Commission’s regulation implementing this provision defines “material change” as: “any change in the product’s design, manufacturing process or sourcing of component parts that . . . could affect a product’s ability to comply with the applicable rules, bans, standards or regulations.” 16 CFR 1107.2. This definition contemplates that certain changes would not be considered “material” if changes are not significant enough to potentially impact the product’s ability to comply with applicable standards and regulations.

The basis for the Commission’s findings in promulgating the standard for architectural glazing was that unreasonable risks of injury are associated with architectural glazing materials used in certain architectural glazing products. In assessing the question of whether unreasonable risks of injury or injury potential are associated with architectural glazing materials, the Commission balanced the degree, nature, and frequency of injury against the potential effect of the standard on the ability of architectural glazing materials to meet the need of the public and the effect of the standard on the cost, utility, and availability of architectural glazing materials to meet that need. 16 CFR 1201.1(d)(5).

Consistent with this prior analysis, for the proposed amendment, the Commission has reviewed whether the proposed amendment would alter the original basic purpose of the rule

addressing an unreasonable risk of injury associated with architectural glazing materials, including whether the proposed amendment would have an important or significant impact on the safety of consumers or on the burdens imposed on the regulated industry. In particular, to assess whether the basic purpose and provisions of the standard would be altered, the Commission compared the existing CPSC test procedures in the mandatory standard with the ANSI test procedures. The basic purpose of 16 CFR 1201.4 is to provide test procedures that will assess the safety of architectural glazing materials. The mandatory standard was promulgated to reduce or eliminate risks of injuries associated with walking, running, or falling through or against glazing materials in storm doors, doors (both exterior and interior), shower and bathtub doors and enclosures, and sliding or patio-type doors. The adoption of the ANSI test procedures will not alter that purpose. As discussed in section II below, the proposed amended testing procedures will clarify the existing test procedures and update references to current test methods.

In addition, the Commission reviewed whether there would be an important or significant impact on the safety of consumers. As discussed in section IV below, CPSC staff's review showed that almost all of the samples tested both to 16 CFR 1201.1 and the ANSI standard passed both standards; only a small number of samples tested (5 out of more than 3,500) failed the CPSC standard testing, but passed when tested to the voluntary standard. Thus, the proposed amendment is unlikely to have an important or significant impact on the safety of consumers because testing to either standard provided consistent and comparable test results.

The Commission also reviewed whether there would be any important or significant impact on the burdens imposed on the regulated industry. As discussed in section V below, CPSC staff's review showed existing widespread compliance with the ANSI

standard. Therefore, the data did not show that adoption of the ANSI test procedures would impose any additional burdens on the regulated industry. In fact, a slight reduction in the burdens imposed on the regulated industry is likely because the proposed amendment would reduce confusion in the industry regarding applicable test procedures. Moreover, adoption of the ANSI test procedures likely will make testing of the architectural glazing materials more efficient, less costly, and reduce redundant testing for manufacturers who currently comply with the ANSI standard, as well as the CPSC mandatory standard.

Accordingly, as provided under section 9(h) of the CPSA, the Commission believes that the proposed amendment replacing the test procedures specified in the CPSC mandatory standard with the test procedures in the ANSI standard would not involve a material change requiring the procedures under sections 7 and 9 of the CPSA. However, because the proposed amendment would make revisions to an existing standard, the Commission is providing notice and comment under the informal rulemaking procedures of the APA, 5 U.S.C. 553, before issuing a final rule.

II. The Proposed Amendment

A. No Change in Scope

The proposed amendment would replace the test procedures in the CPSC standard at 16 CFR 1201.4 with the ANSI test procedures. The ANSI standard covers certain products, materials, and uses that are exempt from the CPSC standard. The proposed amendment would not change the scope of products, materials, or uses covered by the CPSC standard.

The CPSC standard currently exempts: wired glass used in doors or other assemblies to retard the passage of fire where required by federal, state, local, or municipal fire ordinance; louvers of jalousie doors; openings of doors which a 3 inch diameter sphere is unable to pass; carved glass, dalle glass, or leaded glass; glazing materials used as curved

glazed panels in revolving doors; and commercial refrigerator cabinet glazed doors. 16 CFR 1201.1(c). In addition, the test procedures at 16 CFR 1201.4(a)(2) do not provide for accelerated environmental durability testing of plastic glazing materials because those tests were removed from 16 CFR part 1201 by the Commission in the early 1980s. (45 FR 66002, October 6, 1980). Moreover, tempered glass, wired glass, and annealed glass are not required to be subjected to the accelerated environmental durability tests. *Id.* at § 1201.4(a)(2).

In contrast, the ANSI standard does not exempt any specific glazing materials. The ANSI testing procedures include testing for materials and products that are not covered by the CPSC standard: plastic glazing and fire-resistant wire-glass. Accordingly, the ANSI standard includes tests for certain items, such as fire-resistant wired glass and accelerated environmental durability testing for plastic glazing, which are otherwise exempt from the CPSC standard. Although the ANSI standard does not specifically exempt tempered glass, wired glass, and annealed glass from the accelerated environmental durability tests, the ANSI standard only requires plastic glazing and organic coated glass to be subjected to the accelerated environmental durability test. Tests in the ANSI standard that apply to materials, products, or uses that are exempt from the CPSC standard would not be included in the proposed amendment.

In the proposed amendment, the Commission does not propose to alter the scope or exemptions provided in the CPSC standard; materials that are exempt from 16 CFR part 1201 would continue to be exempt, and those exempt materials would not be subject to the ANSI test procedures. The proposed amendment, however, would adopt the ANSI standard for the remaining test procedures in the CPSC standard.

B. Test Procedures for Glazing Materials

The proposed amendment replacing the CPSC test procedures in 16 CFR 1201.4 with the ANSI test procedures will clarify the existing test procedures and update references to current test methods.

1. Obsolete references will be replaced with updated test methods

Currently, 16 CFR 1201.4(b)(3)(ii) refers to obsolete ASTM standard practices and equipment, which have been replaced in the ANSI standard (5.4.1.1, 5.4.1.2). For example, the simulated weathering test in the CPSC standard references two outdated ASTM standards:

- ASTM G26-70 - *Practice for Operating Light Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials*, was withdrawn by ASTM in 2000, and replaced with ASTM G155 - *Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials*.
- The obsolete 1970 edition of ASTM D2565-70 - *Practice for Xenon-Arc Exposure of Plastics Intended for Outdoor Applications*, has been revised over the years; its current edition is ASTM D2565-99(2008).

For manufacturers who test to both the 16 CFR 1201.4 and the ANSI standard, using these withdrawn and obsolete versions of current standards can result in increased costs and duplication of testing if manufacturers are required to test to the earlier versions of these editions to meet the regulation and also test to the current versions of these standard practice test procedures to meet the voluntary standard. Furthermore, the old standards referenced in 16 CFR 1201.4 (b)(3)(ii) require obsolete test equipment that is currently not manufactured. By replacing the CPSC testing procedures with the updated references in the ANSI standard, the proposed amendment would allow the use of currently manufactured test equipment rather than

the obsolete and outdated equipment referenced in section 1201.4(b)(3)(ii). The updated references would not involve a material change to the standard because changing these references to reflect current test methods would not alter the basic purpose of the CPSC standard.

2. The ANSI impact tests are similar to the impact tests in section 1201.4(b)

Although ANSI Z97.1-2009^{e2} has been modified several times since the CPSC standard was published, the impact tests of 16 CFR 1201.4(b) and ANSI Z97.1-2009^{e2} (5) are similar. The CPSC standard shows drawings of a Glass Impact Test Structure (Figures 1-5) that is similar to the drawing of the Impact Test Frame drawing in ANSI Z97.1-2009^{e2} (Figures 1-7), except for differences in the descriptive terms used for naming the parts of the test apparatus, *i.e.*, Main Frame and Sub-Frame in ANSI Z97.1-2009,^{e2} versus 16 CFR 1201.4's Impact Test Structure and Test Specimen Mounting Frame. ANSI Z97.1-2009^{e2} provides enlarged drawings of the Impact Test Frame. Overall, the Glass Impact Test Structure of 16 CFR 1201.4 appears to be of similar construction to the ANSI Z97.1-2009^{e2} Impact Test Frame, except that ANSI Z97.1-2009^{e2} provides clearer assembly drawings.

The ANSI drawings are larger and clearer to use, which would benefit manufacturers. In addition, if the ANSI impact test procedures were adopted, manufacturers who currently test to both the CPSC standard and ANSI standard could avoid duplicative testing because the manufacturers would not need to conduct impact tests for both the CPSC standard and the ANSI standard. The proposed amendment adopting the ANSI test procedures would not involve a material change to the standard because the ANSI impact tests are comparable to the CPSC impact tests, but clearer construction drawings are provided in the ANSI standard.

3. The ANSI test procedures clarify specimen categories, methodology, and quantity

The CPSC standard provides two impact categories, 150 foot-pound impact test (Category I) and 400 foot-pound impact test (Category II). 16 CFR 1201.4(d). The ANSI standard provides three impact categories (5.1.2.1): a 400 foot-pound impact test (Class A); a 150 foot-pound impact test (Class B); and a 100 foot-pound impact test (Class C) for fire-resistant wired glass. The proposed amendment would not result in a material change because the impact categories in the CPSC standard would remain the same and still include the 150 foot-pound impact test and 400 foot-pound impact test. The 100 foot-pound test in the ANSI standard only applies to fire-resistant wired glass, a product that is exempt from the CPSC standard. The Commission is not proposing to change the scope of the materials covered by the CPSC standard. Thus, manufacturers would not be required to follow the ANSI standard 100 foot-pound impact test (Class C) for fire-resistant wired glass because these materials remain exempt under the proposed amendment.

Both 16 CFR 1201.4(e)(1) and ANSI Z97.1-2009^{e2} (5.1.4 (1)) permit using a 3-inch diameter steel sphere for evaluating any hole remaining in an impact tested specimen after the impact test for flat specimens. However, the standards differ because the CPSC standard requires that the specimen be evaluated in a horizontal position after the vertical test is completed. ANSI Z97.1-2009^{e2} requires that the impacted specimen remain in the vertical, upright as-impact tested position while being evaluated with the 3-inch diameter steel sphere. Adopting the ANSI test procedure does not constitute a material change in the test method because the basic purpose of the requirement is not altered; rather, the test procedure is clarified. Leaving the specimen in the vertical position makes it less likely that gravity or human error will contribute to the potential failure of a product.

In addition, the requirements for size classification of impact specimens at 16 CFR 1201.4(c)(2) does not specify the number of specimens to be impact tested; rather, the standard requires only that the largest size and each thickness offered by the manufacturer are to be tested. However, ANSI Z97.1-2009^{e2} (4.4) requires that four specimens of each size and thickness are to be impact tested. Specifying the number of specimens to be tested would not involve a material change to the standard because the proposed amendment would not alter the basic purpose of the requirement; rather, the ANSI test method would clarify the number of specimens to be tested, which would help reduce confusion on the number of specimens to be tested and provide a clearer test for manufacturers.

4. *The ANSI test procedures clarify procedures for evaluating tempered glass specimens*

ANSI Z97.1-2009^{e2} (5.2) has more specific procedures for evaluating tempered glass specimens than 16 CFR 1201.4(d). The ANSI standard specifies a procedure to evaluate tempered glass specimens that did not fracture as a result of the 400 foot-pound Class A impact test. In the CPSC standard, fragmented pieces of glass were evaluated, by size and weight, only if the specimen failed the impact test. The ANSI standard requires that all samples that have been impacted be subjected to a “Center Punch Fragmentation Test,” which requires purposely fracturing the unbroken impact-tested tempered glass specimen with a center punch and hammer. In both cases, the fractured pieces of the tempered glass specimen are evaluated by weighing the 10 largest fragments. A tempered glass specimen is considered to conform to both the CPSC standard and ANSI Z97.1-2009^{e2} as acceptable for use as safety glazing, if the 10 largest fragments weigh no more than the equivalent of 10 in² of the original unbroken specimen; however, ANSI Z97.1-2009^{e2} requires that the pieces selected be no longer than 4 inches in

length. Adopting the ANSI test procedures for evaluating tempered glass would not alter the basic purpose of the CPSC standard; rather, the ANSI Center Punch Fragmentation Test provides a more accurate and efficient way of measuring potential failures, which would further clarify the impact test for tempered glass for manufacturers.

5. Other Provisions

There are other testing procedures in the CPSC standard and the ANSI standard that are similar. Both standards have a boil test for laminated glass and similar requirements for testing for failure (1201.4(c)(3)(i); ANSI Z97.1-2009^{e2} (5.3)). Both standards provide for accelerated environmental durability testing for organic coated glass (1201.4(d)(2)(B); ANSI Z97.1-2009^{e2} (5.4)); adhesion tests for organic coated glass (1201.4(e)(ii)(B)(1); ANSI Z97.1-2009^{e2} (5.4.2.2.1)); tensile strength tests for organic coated glass (1201.4(e)(ii)(B)(2); ANSI Z97.1-2009^{e2} (5.4.2.2.2)); and impact testing of organic coated glazing materials for indoor service (1201.4(c)(3)(iii); ANSI Z97.1-2009^{e2} (5.4.3)). The similarities in the testing procedures between the two standards further support the adoption of the proposed ANSI testing procedures. The proposed amendment would not result in a material change because the tests are comparable; however, manufacturers who currently test to both the CPSC standard and ANSI standard could reduce confusion regarding which standard to follow, and avoid duplicative testing, if the Commission specified the use of the ANSI test procedures.

III. Injury Information

CPSC Staff reviewed the Injury and Potential Injury Incident (IPII), In-Depth Investigation (IDI), and Death Certificate databases for injuries reported to the Commission and identified 430 incidents for the period from 1978 to 2014. Since 1978, 98 architectural glazing-

related fatalities were reported to the CPSC. Shower doors and enclosures accounted for 64 percent of the injuries and deaths. Glass or partial glass storm doors accounted for 15 percent of the reported injuries and deaths, and “sliding glass” doors or doors only specified as “glass doors” accounted for 8 percent each of the reported injuries and deaths. At least two of the incidents involved wired glass, which is exempt from the CPSC standard.

In addition to reviewing the CPSC databases, CSPC staff also identified 9,942 cases that occurred during the period from 1991 through 2013, which involved injuries from architectural glazing products treated in the emergency departments of CPSC’s National Electronic Injury Surveillance System (“NEISS”) member hospitals. Staff determined that due to design changes within NEISS, estimates made before 1991 are not comparable. Based on these cases, staff computed a national estimate of 420,000 emergency department-treated injuries, with a coefficient of variance of 0.0648 percent. The 95 percent confidence interval for this estimate is 366,000 to 473,000. Ninety-six percent of the cases during the 1992 to 2013 period, which were reviewed by staff, involved lacerations. During this 20-year time period, the estimated number of emergency department-treated architectural glazing breakage incidents has declined.

Injury severity ranged from minor lacerations, abrasions, and contusions, to more severe laceration, puncture, and penetration injuries. The body part most often involved in these incidents was the arm (46.8%), followed by hand (30.1%), and head (8.6%). The incidents captured in NEISS suggest that the most severe injuries (*i.e.*, injuries that necessitated transfer to another hospital or admission to the hospital where emergency room treatment was provided) represented approximately 5 percent of the total. Lacerations are the most common hazard associated with glazing failures, and can range from superficial to extreme in their severity.

Severe injuries often require surgery and rehabilitation, which may result in the loss of motion, loss of sensation, or permanent disfigurement.

Although many incident reports lacked detailed information about the injury, a review of the incidents from the CPSC databases suggests that many of the injuries and deaths resulted from products that did not meet the CPSC standard; the deep laceration injuries and puncture and penetration wounds reported in these incidents, some of which were fatal, most likely resulted from large glass fragments from broken pieces of non-safety glass.

IV. Impact on consumer safety

To assess the potential effect of the proposed amendment on consumer safety, in January 2014, CPSC staff collected information on sample data from 16 SGCC-approved testing laboratories to assess the relative compliance of architectural glazing companies with 16 CFR 1201.4 and the ANSI standard. The 16 laboratories represented approximately 70 percent of the third party testing laboratories responsible for testing architectural glazing products. Specifically, the companies were asked if specimens that pass 16 CFR 1201.4 were ever noncompliant with ANSI standard, and if so, the frequency of such occurrence. Ninety percent of all responses stated that there had never been an instance in which a specimen that complied with the ANSI standard did not also comply with the requirements of 16 CFR 1201.4.

These data indicate that replacing the CPSC standard testing procedures with the testing procedures in the ANSI standard would not have an important or significant impact on consumer safety because only a small number of samples tested (5 out of more than 3,500) failed the CPSC standard testing, but passed when tested to the voluntary standard. Accordingly, the data show that testing to either standard provides consistent testing results, and adopting the ANSI standard would not significantly affect the testing results.

V. Burdens on Industry Generally

As discussed in section II, replacing the test procedures in 16 CFR 1201.4 with the ANSI standard test procedures will make product testing more efficient and avoid potentially redundant tests for manufacturers who currently comply with the voluntary and the CPSC standard. Moreover, there is already substantial compliance with the ANSI standard.

CPSC staff's review showed that there are about 250 manufacturers of architectural glazing materials and roughly 2,500 glazing material products certified annually. SGCC manages the certification testing for about 70 percent of the market. The remaining manufacturers conduct in-house testing or they contract testing through labs outside of SGCC. All but a small proportion of these manufacturers currently test to both the CPSC mandatory standard and the ANSI voluntary standard.

Most manufacturers in the architectural glazing industry certify their products to ANSI Z97.1-2009⁶² and 16 CFR part 1201. Of the products certified through SGCC, 99 percent or 1,855 products were certified to both ANSI Z97.1-2009⁶² and 16 C.F.R. part 1201. Only 12 products (0.6%) were certified solely to ANSI Z97.1-2009⁶²; seven products (0.4%) were certified solely to 16 CFR part 1201. CPSC staff's review of manufacturers from the Glass Association of North America ("GANA"), which consists of members that both do and do not participate in the SGCC program, indicated that of the 35 manufacturers that test their products outside of SGCC and provided certification information, 32 manufacturers certified to both standards, and only three manufacturers listed certification to just 16 CFR part 1201.

Based on CPSC staff's review, if the ANSI standard test procedures were adopted, the proposed amendment would not have an important or significant impact on the burdens imposed on the regulated industry. Almost all of the manufacturers already certify to the

ANSI standard. Manufacturers currently testing to both the ANSI standard and the CPSC standard will probably experience a decrease in testing and certification costs because they would only need to follow one testing protocol to be certified to both standards. This reduces the number of samples that a manufacturer needs to fabricate for testing, which will directly reduce certification costs. In addition, for manufacturers who contract out their testing, shipping costs will be reduced, due to the smaller number of samples shipped. SGCC estimates that its customers each would save an average of \$1,284 per product tested annually. Thus, the proposed amendment likely would lessen the impact on the burdens imposed on industry to meet the requirements of the CPSC standard.

VI. *Regulatory Flexibility Act Analysis*

The Regulatory Flexibility Act (“RFA”) requires that proposed rules be reviewed for the potential economic impact on small entities, including small businesses. 5 U.S.C. 601-612. Section 603 of the RFA requires agencies to prepare and make available for public comment an Initial Regulatory Flexibility Analysis (“IRFA”), describing the impact of the proposed rule on small entities and identifying impact-reducing alternatives. The requirement to prepare an IRFA does not apply if the agency certifies that the rulemaking will not have a significant economic impact on a substantial number of small entities. *Id.* 605. Because the Commission expects that the economic effect on all entities will be minimal, the Commission certifies that the proposed rule will not have a significant economic impact on a substantial number of small entities.

Small Entities to Which the Proposed Rule Would Apply

The U.S. Small Business Administration (“SBA”) guidelines categorize manufacturers of flat glass as “small” if they have fewer than 1,000 employees; and they categorize manufacturers of products made with purchased glass as “small” if they have fewer than 500 employees. In

cases where firms fall under both categories, the size standard for flat glass manufacturers is applied to classify the firm. Based upon these criteria, the number of small manufacturers and importers identified in the architectural glazing market is 104, including 10 firms of undetermined size. Of the 104 small manufacturers known to produce architectural glass, 84 certify their products through the SGCC and 20 certify their products through other in-house testing, or they contract the testing.

The expected impact of the proposed rule is to reduce the costs of certification for most manufacturers. The 102 of 104 small manufacturers currently testing to both the ANSI standard and the CPSC standard also will probably experience a decrease in testing and certification costs because they would only need to follow one testing protocol to be certified to both standards. This reduces the number of samples a manufacturer needs to fabricate for testing, thus directly reducing certification costs. In addition, for manufacturers who contract out their testing, shipping costs will be reduced, due to the smaller number of samples shipped.

SGCC estimates that its customers would each save an average of \$1,284 per product tested annually. Two manufacturers outside SGCC's membership who currently test to both standards will also likely see cost savings. However, if these two manufacturers currently conduct their testing in-house, they do not incur the costs of shipping samples to SGCC; thus, the cost savings will be limited to the savings from fabricating fewer testing samples.

One of the two small domestic manufacturers that does not certify to both standards is listed under SGCC's certified products directory and tests products only to 16 CFR part 1201. SGCC's fees are structured so that testing to ANSI Z97.1-2009^{e2} and 16 CFR part 1201 currently cost the manufacturer the same. Thus, this manufacturer should not experience an increase in testing fees from aligning 16 CFR 1201.4's testing protocol with ANSI Z97.1-2009^{e2}. However,

there will probably be an increase in cost associated with the shipping and fabrication of the higher number of CPSC samples required to be tested under ANSI Z97.1-2009⁶².

Of those small manufacturers identified outside of SGCC, only one was found to have products tested only to 16 CFR 1201.4, according to certification information readily available. This small manufacturer contracts out to a lab for certification and the lab tests to both standards. Therefore, this small manufacturer should not incur any significant increase due to testing fees. However, this manufacturer could experience some increase in shipping and fabricating costs, as identified above.

In summary, 102 of 104 small architectural glazing producers (or about 98 percent of the small producers) would experience some slight cost savings, or no impact, due to the proposed amendment. Consequently, the Commission certifies that the proposed rule will not have a significant economic impact on a substantial number of small entities under the criteria of the RFA.

VII. *Environmental Considerations*

Generally, the Commission's regulations are considered to have little or no potential for affecting the human environment, and environmental assessments and impact statements are not usually required. See 16 CFR 1021.5(a). The proposed rule is not expected to have an adverse impact on the environment and is considered to fall within the "categorical exclusion" for the purposes of the National Environmental Policy Act. 16 CFR 1021.5(c). However, the proposed rule will decrease the number of samples that most manufacturers are required to test, and will likely lead to a small, beneficial effect on the environment because waste produced by the manufacture of excess samples, and the transport of those samples, will be reduced.

VIII. *Paperwork Reduction Act*

Currently, there is no paperwork collection burden associated with 16 CFR part 1201, and the proposed amendment to the regulation does not create any new paperwork collection burdens. Thus, no paperwork burden is associated with the proposed rule, and the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) does not apply.

IX. *Executive Order 12988 (Preemption)*

Section 26(a) of the CPSA, 15 U.S.C. 2075(a), provides that when a consumer product safety standard under this Act is in effect and applies to a risk of injury associated with a consumer product, no state or political subdivision of a state may either establish or continue in effect any provision of a safety standard or regulation which prescribes any requirements as to the performance, composition, contents, design, finish, construction, packaging, or labeling of such product, which are designed to deal with the same risk of injury associated with such consumer product, unless such requirements are identical to the requirements of the federal standard. Section 9(h) of the CPSA provides that the Commission may by rule amend any consumer product safety rule. Therefore, the preemption provision of section 26(a) of the CPSA would apply to any rule issued under section 9(h).

X. *Effective Date*

The APA generally requires that the effective date of a rule be at least 30 days after publication of a final rule. 5 U.S.C. 553(d). Accordingly, if a final rule is issued, the amendment will go into effect 30 days after publication of a final rule.

XI. *Incorporation by Reference*

The Commission proposes to incorporate by reference ANSI Z97.1-2009⁶². The Office of the Federal Register (“OFR”) has regulations concerning incorporation by reference. 1 CFR

part 51. The OFR recently revised these regulations to require that, for a proposed rule, agencies must discuss in the preamble to the NPR, ways that the materials that the agency proposes to incorporate by reference are reasonably available to interested persons, or how the agency worked to make the materials reasonably available. In addition, the preamble to the proposed rule must summarize the material. 16 CFR 51.5(a).

In accordance with the OFR's requirements, section II of this preamble summarizes the ANSI Z97.1-2009^{e2} standard that the Commission proposes to incorporate by reference into 16 CFR part 1201. Interested persons may purchase a copy of ANSI Z97.1-2009^{e2} from the following address. Attn: ANSI Customer Service Department, 25 W 43rd Street, 4th Floor, New York, NY, 10036. The standard is also available for purchase from ANSI's website: <http://webstore.ansi.org/RecordDetail.aspx?sku=ANSI+Z97.1-2009>. A copy of the standard can also be inspected at CPSC's Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923.

XII. Request for Comments

The Commission invites interested persons to submit their comments to the Commission on any aspect of the proposed amendment. Comments should be submitted as provided in the instructions in the ADDRESSES section at the beginning of this notice.

List of Subjects in 16 CFR Part 1201

Administrative practice and procedure, Consumer protection, Imports, Labeling, Law enforcement, Incorporation by reference.

For the reasons stated in the preamble, the Consumer Product Safety Commission proposes to amend 16 CFR part 1201 as follows:

PART 1201 – SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS

1. The authority citation for part 1201 continues to read as follows:

Authority: Secs. 2, 3, 7, 9, 14, 19. Pub.L. 92-573, 86 Stat. 1212-17; (15 U.S.C. 2051, 2052, 2056, 2058, 2063, 2068)

2. Revise § 1201.4 to read as follows:

(a) Except as provided in § 1201.1(c) and (d), architectural glazing products shall be tested in accordance with all of the applicable test provisions of ANSI Z97.1-2009^{e2} “*American National Standard for Safety Glazing Materials Used in Building – Safety Performance Specifications and Methods of Test.*” The Director of the Federal Register approves the incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from ANSI Customer Service Department, 25 W 43rd Street, 4th Floor, New York, NY, 10036. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

(b) [Reserved]

3. Remove Figures 1 through 5 to Subpart A of Part 1201.

Dated: May 19, 2015

Todd A. Stevenson, Secretary
Consumer Product Safety Commission.

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